

SOV/5726

Transactions of the Seminar (Cont.)

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1953 3/5

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SHULIKOVSKIY, V.I.

Differential-topological characteristic of a system of nets with
equal Chebyshev vectors and a common nonpolar net. Trudy Sem.po
vekt.i tenz.anal. no.11:141-151 '61. (MIRA 15:3)
(Aggregates) (Calculus of tensors)

ACC NR: AR6035557

SOURCE CODE: UR/0269/66/000/010/0077/0077

AUTHOR: Shulikovskiy, V. I.

TITLE: Geodetic field of the vectors of an affinely connected two-dimensional space

SOURCE: Ref. zh. Astronomiya, Abs. 10.51.576

REF SOURCE: Sb. Gravitatsiya i teoriya otnositel'n. Vyp. 2. Kazan', Kazansk. un-t, 1965, 114-120

TOPIC TAGS: *geometric field* geodetic field, vector, *mathematic* ~~affinely connected~~ space, approximation,

ABSTRACT: Arbitrary affinely connected spaces are classified into spaces which permit one, two and an infinite number of isotropic pseudo-vector fields, respectively. The canonical normalization on the basis of which the so-called convergence vector corresponds to each nonisotropic geodetic pseudo-vector, is determined for each nonisotropic geodetic field of the pseudo-vector. It is proved that in the general case the geodetic field is uniquely determined by its convergence vector. The pseudo-vector geodetic fields are divided into two types depending on the properties of the convergence vectors: gradient fields (when the

Card 1/2

UDC: 523.11

ACC NR: AR6035557

corresponding convergence vector is gradient) and special fields. An invariant criterion of a space permitting the existence of a gradient geodetic field has been obtained. The properties of gradient geodetic fields are investigated for the case of Weil connectedness. V. Zakharov. [Translation of abstract] [DW]

SUB CODE: 12/

Card 2/2

SHULIMOVICH, G.V., inzh.

Universal multiple bending die. Mashinostroenie no.6:19-20 N-D
'63. (MIRA 16:12)

SHULIMOVICH, G.V., inzh.

Use of a universal multiple block die. Mashinostroenie no. 2:
55-56 Mr-Ap '64. (MIRA 17:5)

SHULDOVICH, S.V., 1914.

Universal bending die for manufacturing cable lugs and a
device for grinding punches. Mashinostroenie no.4363-64
51-kg '64. (MIRA 17:10)

SHULIMOVICH, G.V., inzh.

Dies for cutting rods, winding brushholder levers and manufacturing locking washers. Mashinostroeni^e no.1:66-6. Ja-F '65.
(MIRA 18:4)

GREYSUKH, M.V.; YERMILOV, A.A.; ZALESSKIY, Yu.Ye.; KAZYMOV, A.A.;
KATSEVICH, L.S.; KIRPA, I.I.; KIREYEV, M.I.; KNYAZEVSKIY,
B.A.; KOFMAN, K.D.; KRZHAVANIK, L.V.; KUZNETSOV, P.V.;
MOROZOV, K.S.; RAKOVICH, I.I.; RYABOV, M.S.; SVENCHANSKIY,
A.D.; SOKOLOV, M.M.; SYCHEV, L.I.; TVERDIN, L.M.; KHEYFITS,
M.E.; SHULIMOV, Ye.V.; EPSHTEYN, L.M.; SHCHEGOL'KOV, Ye.I.;
TSAPENKO, Ye.F.; FEDOROV, A.A., glav. red.; SERBINOVSKIY, G.V.,
red.; BOL'SHAM, Ya.M., red.; BRANDENBURGSKAYA, E.Ya., red.;
TVERDIN, L.M., red.; FRIDKIN, L.M., tekhn. red.

[Handbook for power engineers of industrial enterprises in
four volumes] Spravochnik energetika promyshlennykh pred-
priyatii v chetyrekh tomakh. Moskva, Gosenergoizdat.
Vol.2. [Electric-power supply (conclusion), use of electric
power and electrical equipment in some branches of industry]
Elektrosnabzhenie (okonchanie), priemniki elektroenergii i
elektrooborudovanie nekotorykh otraslei promyshlennosti. Pod
obshchei red. A.A.Fedorova (glav. red.), G.V.Serbinovskogo i
I.A.M.Bol'shama. 1963. 880 p. (MIRA 16:7)

(Power engineering--Handbooks, manuals, etc.)
(Electric power distribution)

SHULIN, N.I.; TISHCHENKO, N.A., gorn.inzh., retsenzents; KRASNYANSKIY, Y.A.,
redaktor.

[Mine hoisting signaler; textbook for workers' production and technical training] Signalist shakhtnogo pod"ema. Uchebnik dlia proizvodstvenno-tekhnicheskogo obucheniia rabochikh. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1954. 133 p.
(Mine hoisting) (Mine communication) (MIRA 7:12)

SHULIN, N.I.

Dispatcher control of electric locomotive haulage at the Gigant
mine. Gor.zhur. no.11:36 N '55. (MLRA 9:1)

1.Glavnyy energetik rudnika imeni Dzerzhinskogo.
(Mine haulage)

OKOROKOV, Mikhail Alekseyevich; SHULIN, Nikolay Ivanovich; GORBUNOV, K.N., red.; KISELEVA, T.I., red.izd-va; ISLENT'YEVA, P.G., tekhn.red.

[Signaling, interlocking, and communication system in mine transportation] Ustroistva STsB i sviazi na vnutrishakhtnom transporte. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1959. 316 p. (MIRA 12:8)
(Mine railroads) (Railroads--Signaling--Interlocking systems)
(Mine communications)

TRUBETSKOV, L.V.; SHULIN, N.I.

Practice of using track circuits for STS in mines. Sbor. nauch.
trud. KGRI no.19:65-67 '62. (MIRA 16:5)

(Mine railroads--Signaling--Centralized traffic control)
(Automatic control)

IL'IN, Anatoliy Afanas'yevich; PELIPENKO, Viktor Nikolayevich; SHULIN,
N.I., retsenzent; GUZOV, E.S., retsenzent; BYKHOVSKIY, Ya.L., otv.
red.

[Dispatcher communication using the contact network in
mines] Dispetcherskaia sviaz' po kontaktnoi seti rudnikov.
Moskva, Nedra, 1964. 163 p. (MIRA 18:3)

MALAKHOV, G.M., prof., doktor tekhn. nauky VASHCHENKO, V.S.,
KHOVVENKO, A.F.; VERESA, F.I.; BELEN'KIY, Ye.V.;
SMALIY, V.Ya.; PETRENKO, P.D.; BEZUKH, V.R.; SHULIN,
N.I.; RODIONOVA, N.P., ved. red.

[Technical progress at the "Gigant" Mine in the Krivoy
Rog Basin] Tekhnicheskii progress na shakhte "Gigant"
v Krivorozhskom basseine. Moskva, Nedra, 1964. 119 p.
(MIRA 18:3)

1. Glavnyy inzhener i nachal'nik shakhty "Gigant" v Krivo-
rozhskom Basseyne (for Vashchenko).

3 116-1-1-1-1-1-1

PA - 2875

AUTHOR: Not given
TITLE: Dissertations (July-December 1956) Department for Chemical Science.
(Otdeleniie khimicheskikh nauk, Russian)
PERIODICAL: Vestnik Akademii Nauk SSSR, 1957, Vol 27, Nr 4, pp 132-133
(U.S.S.R.)
Received: 5 / 1957 Reviewed: 7 / 1957

ABSTRACT: At the Institute for General and Nonorganic Chemistry the following dissertations were submitted for the purpose of obtaining the Academic degree of "Candidate of Chemical Science":
E.F.SHUBOCHKINA: "On the Velocity of Reactions of Innerspherical Exchange in Some Platinum Compounds".
At the Institute for Organic Chemistry:
N.M.NAZAROVA: "Catalytic alkalization of Paraffin and of Olefines at High Pressure".
V.M.SHULIN: "Research of Thermal Transformations of Tetramethylene and Tetrachlorethylene at High Pressure".
At the Institute for Physical Chemistry:
N.N.KAVTARADZE: "The Absorption of Hydrogen in Condenses Metal Layers".

Card 1/2

Dissertations (July-December 1956) Department for Chemical Science. PA - 2875

At the Radium Institute:

The following dissertation was submitted for the purpose of obtaining the Academic degree of "Doctor of Physical and Mathematical Sciences":

W.F.LIVIN: "The Determination of the Quantum Characteristics of the Resulting Nuclei from the Reactions of the type (d,p) by the Analysis of the Products of the Reactions".

ASSOCIATION: Not given

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress

Card 2/2

YASKEVICH, A.T.; SHULIP, V.P.; SHCHEKOLDIN, G.N.; ZAPECHEL'NYUK, F.I.

More efficient production of nepheline concentrate. Prom.energ.11
no.5:25 My '56. (Nepheline) (MLRA 9:9)

SHULIPENKO, O.I.

Structural properties of binomial coefficients. Trudy KIPP
no.16:17-21 '57. (MIRA 12:7)

1. Krasnodarskiy institut pishchevoy promyshlennosti, Mekhanicheskiy fakul'tet, kafedra matematiki i teoreticheskoy mekhaniki.
(Combinations)

PHASE I BOOK EXPLOITATION

SOV/5608

Katskova, O. N., I. N. Naumova, Yu. D. Shmyglevskiy, and N. P. Shulishnina

Opyt rascheta ploskikh i osesimmetrichnykh sverkhzvukovykh techeniy gaza metodom kharakteristik (Computation Practice of Horizontal and Axially Symmetric Supersonic Gas Flow by the Method of Characteristics) Moscow, Vychislitel'nyy tsentr AN SSSR, 1961. 57 p. 1,100 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Vychislitel'nyy tsentr. Resp. Ed.: Yu. D. Shmyglevskiy; Tech. Ed.: A. I. Korkina.

PURPOSE : This book is intended for those interested in gas dynamics and analytical computing methods in the investigation of axially symmetric supersonic flow

COVERAGE: The book deals with the application of the method of characteristics for calculating partial derivatives of the hyperbolic type used in the investigation of axially symmetric supersonic flows. Vychislitel'nyy tsentr AN SSSR (Computer Card 1/3

Computation Practice of Horizontal (Cont.) SOV/5608

Center of the Academy of Sciences USSR) has been deriving experience from the use of this method since 1955. The authors thank P. I. Chushkin. There are 11 references: 8 Soviet, 1 English, 1 French, and 1 German.

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Card 2/3

CHUSHKIN, P.I.; SHULISHININA, N.P.; SHMYGLEVSKIY, Yu.D., otv. red.;
ORLOVA, I.A., red.; POPOVA, N.S., tekhn. red.

[Tables for supersonic flow around blunt-nosed cones] Tab-
litsy sverkhzvukovogo techeniia okolo zatuplennykh konusov.
Moskva, Vychislitel'nyi tsentr AN SSSR, 1961. 91 p.
(MIRA 15:1)
(Aerodynamics, Supersonic--Tables, etc.)

ACCESSION NR: AP4024563

S/0208/64/004/002/0306/0316

AUTHORS: Belotserkovskiy, O. M. (Moscow); Golomazov, M. M. (Moscow);
Smulishnina, N. P. (Moscow)

TITLE: Solution of equilibrium dissociating gas flow over blunt body with detached shock

SOURCE: Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, v. 4, no. 2, 1964, 306-316

TOPIC TAGS: equilibrium gas, blast body, thermodynamic equilibrium, shock wave, equation of state, equilibrium constant

ABSTRACT: The symmetric flow of an ideal dissociated equilibrium gas over a blunt body has been investigated. Thermodynamic equilibrium is assumed to hold for characteristic flow times much larger than gas relaxation times. The direct method is used with approximations taken normal to the shock wave. The continuity and stream function equations are written in curvilinear body-fixed coordinates to which are added the equation of state and the energy equation for a non-heat conducting gas. A system of $2N$ independent integral relationships is obtained by dividing the space between the body and the shock wave into $N-1$ intermediate lines,

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ACCESSION NR: AP4024563

thus

$$n = n_1(s) = \frac{N+1}{N} s(s), \quad l = 2, 3 \dots N_1$$

and integrating the continuity equations along lines $s = \text{constant}$. The resulting equations are shown to be applicable to any arbitrary body contour. The equilibrium constants are approximated by

$$\ln K_{p_i} = A \ln T + \frac{B}{T} + C,$$

and the solution is given up to a second order approximation on a digital computer BESM-2, using standard programming techniques of flow around blunt bodies. Numerical results for a sphere and ellipse are given at Mach 6, $\gamma = 1.4$, and $T = 300K$, and for various free stream static pressures. Orig. art. has: 50 equations and 12 figures.

ASSOCIATION: none

SUBMITTED: 15Aug63

DATE ACQ: 16Apr64

ENCL: 00

SUB CODE: AS

NO REF SOV: 006

OTHER: 000

Card 2/2

SA. SONOV, G.V.; ZHURAVLEV, N.N.; PALENKO, Yu.B.; SHULISHOVA, O.I.
SEREBYANOVA, T.I.

Interaction of gallium, indium, thallium, germanium, tin, and
lead with boron. Zhur. strukt. Khim. 1 no. 4:458-463 N-D '60.
(MIRA 14:2)

1. Institut metallokeramiki i spetsial'nykh splavov AN USSR,
Kiyev.

(Boron) (Metals)

S/849/62/000/000/002/016
A006/A101

AUTHOR: Shulishova, O. I.
TITLE: On the problem of calculating the energy of crystal lattices of inorganic compounds
SOURCE: Vysokotemperaturnyye metallokeramicheskiye materialy. Inst. metalloker. i spets. spl. AN Ukr.SSR. Kiev, Izd-vo AN Ukr.SSR., 1962, 13 - 18
TEXT: Sarkisov has derived a formula to calculate the energy of crystal lattices, but without taking into consideration the nature of bond in the compound:

$$E = K \frac{m^3}{m_{Me} m_x} \frac{(a_{Me}^{f_{Me}} + a_x^{f_x})^{7/3}}{a_{Me}^{f_{Me}^{1/3}} + a_x^{f_x^{1/3}} + f_x^{1/3}} \quad (1)$$

where K is the empiric coefficient depending on the type of the last filled-up shell of the metal; m_{Me} , m_x are the numbers of atoms of the metal (M) and non-metallic material (x) in the molecule; m is their sum; a_{Me} , a_x are the atomic

Card 1/2

S/180/521
E202/E335

AUTHORS: Samsonov, G.V. and Shulishova, O.I. (Kiyev)
TITLE: Calculation of the crystal-lattice energies of metallic compounds

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Metallurgiya i toplivo, no. 3, 1962, 51 - 55

TEXT: Although Sarkisov's formula for the crystalline-lattice energy of a metallic compound MX , given by:

$$E = K \frac{m^3 (A_M f_M + A_X f_X)^{7/3}}{m_M m_X (A_M F_M^3 + A_X F_X^3 + F_X^3)} \quad (4)$$

(where K - empirical coefficient depending on the last filled shell of M , m_M , m_X - number of M and X atoms in the molecule, respectively; m - their sum; A_M , A_X - atomic fractions of the corresponding components; F_M , F_X - repulsion effects of the electrons of skeleton atoms; F_f - repulsion effect between the valency electrons; f_M , f_X - valency electrons)

Card 1/4

S/180/62/000/003/003/016
E202/E335

Calculation of

permits the calculation of E , for compounds the bonds of which cannot be referred to the determined types, there are inherent difficulties in determining the multiplicity of the bond σ and the calculations are very cumbersome. The authors overcome these difficulties by relating the magnitude of the lattice period a_0 (assuming $a_0 = ka$, where a is the lattice parameter) of a single-type compound to the electronic structure of the components, viz:

$$a_0 = \frac{A_M F_M^{1/3} + A_X F_X^{1/2} + F_f^{1/3}}{(A_M f_M + A_X f_X)^{1/3}} \quad (5)$$

in which the repulsion effect of the shared electrons F_f is given by $(A_M f_M + A_X f_X)^{2/3}$ and is thus independent of the principal quantum number and the introduction of σ . Relation (5) substituted in Eq. (4) gives:

Card 2/4

S/180/62/000/003/003/016
E202/E335

Calculation of

$$E = K' \frac{a}{a_0} \left(\frac{m}{m_M^{n_M} X} \right) \left(\frac{(m_M^{f_M} + m_X^{f_X})^2}{a} \right) \quad (6')$$

which for pure metals reduces further to:

$$E = Kf^2/a \quad (6a)$$

Calculations of a_0 and comparison with a as a/a_0 , $(a/a_0)\%$ for the b.c.c. and f.c.c. metals, hexaborides and certain fluorides confirmed the suitability of the authors' assumption. The values of K' , which depend on the crystalline structure of the metal, were also evaluated for the b.c.c. and f.c.c. metals and compared, using the known data of the bond energy of the metals. It was found that Sarkisov's formula is more strictly obeyed by the metallic bonds rather than ionic. [Abstractor's note: references to Kapustinski's empirical formula for the lattice energy were ignored since it is of considerably lower accuracy than the one of Sarkisov; Eq. (6) is incorrectly printed in the journal.]

Card 3/4

Calculation of

S/180/62/000/003/003/016
E202/E335

There are 7 tables.

ASSOCIATION: Institut metallokeramiki i spetsial'nykh
splavov AN UkrSSR
(Institute of Powder Metallurgy and Special
Alloys of the AS UkrSSR)

SUBMITTED: January 10, 1962

Card 4/4

S/226/62/000/005/004/007
E202/E192

AUTHOR: Shulishova, O.I.

TITLE: Approximate method of calculating the energy of crystalline lattice

PERIODICAL: Poroshkovaya metallurgiya, no.5, 1962, 43-46

TEXT: An approximate formula for calculating the energies of crystal lattices for compounds containing a mixed type of bond is developed by means of non rigorous considerations. It is assumed that the energy of the crystalline lattice consists partly of ionic energy E_i , determined by the percentage of the ionic bonding and the covalent part of energy E_c , giving the total lattice energy

$$E = k E_i + (1 - k) E_c \quad (4)$$

where: k is the percentage of ionic bonding; E_i is given by

$$E_i = 256.1 \frac{m f_M f_X}{r_M + r_X} \quad (2)$$

Card 1/ 3

Approximate method of calculating ... S/226/62/000/005/004/007
E202/E192

in which m is the number of ions in the molecule, f_M and f_X are the ionic charges of metal and non-metal, and r_M and r_X ionic radii for coordination number 6.
The value of E_c is found from:

$$E_c = \sum_{n=1}^f I_n + \frac{1}{2} E_M - M - \sum_{n=1}^f F_n + \frac{1}{2} E_X - X \quad (5)$$

in which the first term is the sum of ionization potentials, the second the energy of the metallic bond, the third the energy of the nonmetallic affinity towards the f -electrons, and the last the energy of rupture of the nonmetallic bond. A list of values of k , E_i , E_c and E , calculated in this way for Ti, Zr, Hf, V, Nb, Ta and W carbides is given and a similar calculation is also made for Ti, V, Cr, Sc and La nitrides, comparing the results with the available experimental results. The discrepancy between the calculated and experimental results does not exceed 10%.
There are 2 tables.

Card 2/3

Approximate method of calculating...

S/226/62/000/003/004/007
E202/E192

ASSOCIATION: Institut metallokeramiki i spetsial'nykh splavov
AN USSR
(Institute of Cermets and Special Alloys, AS Ukr.SSR)

SUBMITTED: May 11, 1962

Card 3/3

AID Nr. 984-7 6 June SHULISHOVA, O. I.

SUPERCONDUCTIVITY OF GALLIUM NITRIDE (USSR)

Alekseyevskiy, N. Ye., G. V. Samsonov, and O. I. Shulishova, Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 4, Apr 1963, 1413-1415.
S/056/63/044/004/041/044

Gallium nitride superconductivity is reported as the first instance of nitride superconductivity other than that of transition-metal nitrides. Gallium nitride and indium nitride samples were prepared with precisely stoichiometric composition and oxygen impurities and were tested in powder form for superconductivity. To determine the dependence of critical field on temperature, the magnetic moment of the samples was measured at several constant temperature values as a function of magnetic field. The indium nitride samples showed no superconductive properties at temperatures down to 1.38°K, while pure gallium nitride exhibited superconductivity below critical temperature of 5.85°K. With increased oxygen impurity, the critical temperature fell sharply to below 1.38°K. In contrast to nitrides of transition metals, GaN samples have the same critical temperature regardless of the method of preparation and have a narrow hysteresis loop of dependence of magnetic moment on external field, similar to that of pure metals.

[BB]

Card 1/1

L 42889-66 EWP(e)/EWT(m)/EWP(w)/T/EWP(t)/ETI IJP(c) JD/JG/AT/WH

ACC NR: AP6029817

SOURCE CODE: UR/0363/66/002/008/1434/1438

AUTHOR: Shulishova, O. I.

ORG: none

TITLE: Superconductivity of NbC-NbN solid solutions

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 8, 1966, 1434-1438

TOPIC TAGS: niobium ~~carbonitride~~, niobium ~~carbonitride~~ superconductivity, ~~niobium~~
~~carbonitride-composition~~ *carbon, nitride*

ABSTRACT: A series of niobium carbonitrides containing 7.2—9.1% nitrogen and 3.4—3.5% carbon were synthesized and tested for superconductivity. It was found

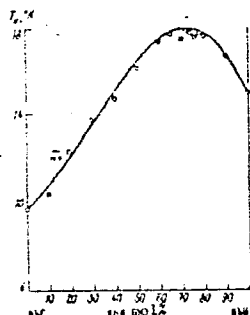


Fig. 1. Composition dependence of critical temperature T_k of niobium carbonitride.

Card 1/2

UDC: 546.882'171.1+546.882.261

L 42887-06

ACC NR: AP6029817

that the critical temperature of the carbonitrides is greatly affected by the composition (see Fig. 1). The highest critical temperature (T_k) of 17.9 K was obtained in a compound with the approximate formula $(\text{NbC})_{0.30}(\text{NbN})_{0.70}$, which corresponds to about 4.85 valent electrons per atom. All the carbonitrides with compositions between $(\text{NbC})_{0.2}(\text{NbN})_{0.8}$ and $(\text{NbC})_{0.4}(\text{NbN})_{0.6}$ have a critical temperature of 17.4—17.8 K. It is noted that still higher values of T_k can be obtained with carbonitrides of stoichiometric composition (the niobium nitride in carbonitrides tested had the composition $\text{NbN}_{0.786}$ — $\text{NbN}_{0.986}$). Orig. art. has: 4 figures and 2 tables. [TD]

SUB CODE: 11, 20/ SUBM DATE: 17Jun65/ OTH REF: 009 / ATD PRESS: 5069

Card 2/2

bdh

ACC NR: AP7002402

SOURCE CODE: UR/0363/66/002/012/2145/2150

AUTHOR: Shulishova, O.I.; Shcherbak, I.A.

ORG: Institute of the Problems of the Science of Materials Academy of Science Ukr SSR (Institut problem materialovedeniya Akademii Nauk Ukr SSR)

TITLE: Investigation of some physical properties of HfC-MoC and TaC-MoC solid solutions

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 12, 1966, 2145-2150

TOPIC TAGS: metal compound, refractory compound, refractory ~~compound~~ alloy, sintered compound, hafnium carbide alloy, ~~molybdenum carbide containing alloy, tantalum carbide alloy, compound physical properties~~

ABSTRACT:

Hafnium carbide-molybdenum carbide alloys and tantalum carbide-molybdenum carbide alloys, both with a MoC content of 0-100 mol%, were synthesized from a mixture of hafnium oxide, tantalum carbide, molybdenum powders, and carbon black. The mixtures were hot compacted at 2000-2200C for 15 min. The sintered bars were vacuum annealed at 2000C for 1-2 hr and slowly cooled.

Card 1/3

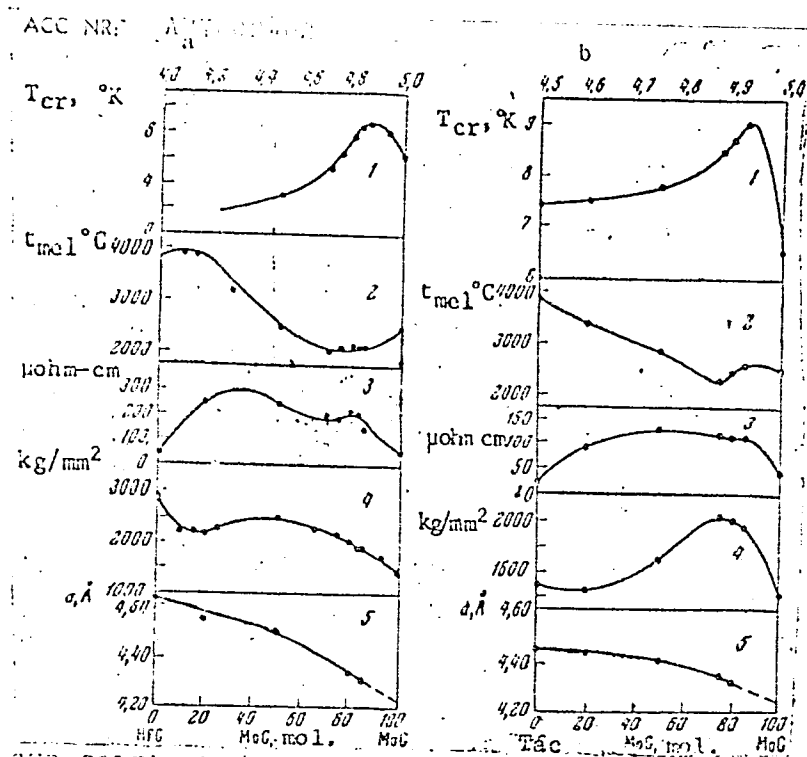
UDC: 54-165

ACC NR: AP7002402

All alloys were found to be homogeneous single-phase solid solutions with a free carbon content of less than 0.5%. The dependence of the temperature of transition to the superconducting state (T_{cr}), melting temperature (T_m), resistivity (S), microhardness (H), and lattice constant (a) on composition or valency electron concentration is shown in Fig. 1. The $(HfC)_{0.90}(MoC)_{0.10}$ and $(HfC)_{0.85}(MoC)_{0.15}$ alloys have a melting temperature higher than 3900K, which makes them the most refractory in the investigated systems. The obtained results also show that in solid solutions of the IV and V group metal carbides with tungsten carbide, the most refractory compounds should be sought in the region of electron concentrations of about 4.2 valence electrons per atom. The alloys of the HfC-WC system should have the highest melting temperature. Compounds with high T_{cr} temperatures should have an electron concentration of 4.8—4.9 valence electrons per atom. All low-temperature measurements were conducted at the laboratory of Corresponding Member AN SSSR N. Ye. Alekseyevskiy in the IFP AN SSSR im. S. I. Vavilov.

UDC: 54—165

Card 2/3



SUB CODE: 11/ SUBM DATE: 03Dec65/ ORIG REF: 005/ OTH REF: 011
 Card 3/3 ATD PRESS: 5113

ACC NR: AT700389

SOURCE CODE: UR/0000/66/000/000/0299/0316

AUTHOR: Shulishova, O. I.

ORG: none

TITLE: Superconductivity and nature of the bond in carbides and nitrides of transition metals and in their solid solutions with structure of the NaCl type

SOURCE: AN BSSR. Institut fiziki tverdogo tela i poluprovodnikov. Khimicheskaya svyaz' v poluprovodnikakh i termodinamika (Chemical bond in semiconductors and thermodynamics). Minsk, Nauka i tekhnika, 1966, 299-316

TOPIC TAGS: transition metal, chemical bonding, carbide, nitride, solid solution, superconductivity, valence electron, phase transition, critical point

ABSTRACT: The purpose of the investigation was to investigate the variation of the temperature T_c of the transition to the superconducting state as a function of the concentration of the valence electrons in compounds of stoichiometric composition, and the laws governing the variation of T_c in the region where the compounds are homogeneous and in a continuous series of solid solutions of carbides and nitrides at electron concentrations ranging from 4 to 5.5 valence electrons per atom. The preparation of the samples is briefly described. The materials tested were nitrides of Sc, La, Pr, Ti, Zr, Hf, V, Nb, Cr, W, and U and carbides of Ti, Zr, Hf, V, Nb, Ta, Mo, and U. The solid solutions were of the systems TiC-NbC, ZrC-NbC, HfC-NbC, ZrC-TaC, NbC-NbN, NbC-TaC, HfC-TaC, HfC-MoC, and TaC-MoC. The superconducting tran-

Card 1/2

UDC: 541.57

ACC NR: AT7003889

sition temperature was determined by a magnetic method from the change of the mutual induction of measuring coils in an ac bridge. Plots are presented of the critical temperature, of the composition of the solid solutions, of the concentrations of the valence electrons and of the state density, of the critical temperature, and other physical properties as functions of the metal content and of the number of valence electrons. The distinguishing features of the superconductivity of the individual metals and compounds are discussed in light of various superconductivity models. Comparison of the various existing models leads to the conclusion that the experimental data agree best with a model which presupposes a strong coupling between the atoms of the metal and nonmetal. This model also affords a satisfactory explanation of the shape of the state-density curve. Orig. art. has: 4 figures and 4 tables.

SUB CODE: 20/ SUBM DATE: 20Aug66/ ORIG REF: 005/ OTH REF: 030

Card 2/2

ACC NR: AP7006203

SOURCE CODE: UR/0363/67/003/001/0061/0066

AUTHOR: Alekseyovskiy, N. Ye.; Samsonov, G. V.; Shulishova, O. I.

ORG: Institute of Materials Science Problems, Academy of Sciences, UkrSSR, Kiev
(Institut problem materialovedeniya Akademii nauk UkrSSR)

TITLE: Superconductivity of solid solutions of transition metal carbides and nitrides

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 3, no. 1, 1967, 61-66

TOPIC TAGS: superconductivity, carbide, nitride, transition metal compound

ABSTRACT: The temperatures of transition to the superconducting state were studied in systems of solid solutions TiC-NbC, ZrC-NbC, HfC-NbC, ZrC-TaC, HfC-TaC, HfC-MoC, TaC-MoC, NbC-NbN and TaC-NbC, constituting a class of compounds with a face-centered cubic NaCl-type lattice. The transition temperatures were determined from the change in the mutual induction of the measuring coils on an alternating current bridge. All the values of the critical temperature were extrapolated to a zero magnetic field. For all systems except TaC-NbC, a nonlinear change of the critical temperature with the composition was established. The observed regularities in the change of the critical temperature in these solid solution systems are analyzed, and it is postulated that change of T_c with the composition results from a change in the density of the electron states. Orig. art. has: 1 figure, 2 tables and 1 formula.

SUB CODE: 07,20/ SUBM DATE: 15Jan66/ ORIG REF: 004/ OTH REF: 013

Card 1/1

UDC: 537.312.62

SHULIVNOK, K.G.

Standardization of technical documentation. Standartizatsiia
29 no.8:5-6 '65. (MIRA 18:10)

BALABANOV, N., mladshiy nauchnyy sotrudnik, kand.tekhn.nauk; SHUL'KEVICH, A.

Increasing the durability of steel parts. Izobr.i rats. no.8:33
Ag '58. (MIRA 11:9)

1. TSentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya (for Balabanov). 2. Zamestitel' nachal'nika otdela TSentral'nogo nauchno-issledovatel'skogo instituta tekhnologii i mashinostroyeniya (for Shul'kevich).
(Steel--Hardening)

81706
S/020/60/132/05/36/069
B011/B126

573200
AUTHORS:

Petrosyan, V. I., Kosyzeva, R. V., Stepukhovich, A. D.,
Shul'kevich, G. V.

TITLE:

The Composition of the Products and the Kinetics of Butane
Cracking Initiated by Additions of Ethylene Oxide 7

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 5,
pp. 1103 - 1106

TEXT: The authors studied the above subject by the statistic method in a high vacuum apparatus. This apparatus consisted of three parts connected in series: a) a kinetic apparatus to study butane cracking on the basis of pressure change; b) chromatographic separating apparatus; c) hydrogen and methane combustion apparatus, also used to detect CO. Table 1 and Figs. 1-3 show the results of cracking at 450°C. It follows from Table 1 that small additions of ethylene oxide effect considerable butane cracking. Cracking does practically not occur without these additions at 450°. All the characteristic products of thermal cracking at higher tempera- 4

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81706

The Composition of the Products and the
Kinetics of Butane Cracking Initiated by
Additions of Ethylene Oxide

S/020/60/132/05/36/069
B011/B126

tures (550-600°C) are contained in the products of cracking thus initiated. Additions of 1-3% are the most effective. If the ethylene oxide additions are increased, the initiating effect reaches a saturation point (predicted in Ref. 13). With an ethylene oxide addition of 10%, the cracking attains about 30%. The self-decomposition of ethylene oxide cannot explain such an intensive butane decomposition, nor the composition of the products, as pure ethylene oxide gives only small quantities of H_2 , CH_4 , C_2H_4 , and C_3H_8 on decomposition (Table 1). The paired products of thermal cracking (at higher temperatures) are formed in the usual quantity ratios ($CH_4 = C_3H_8$, $C_2H_6 = C_2H_4$, and $H_2 = C_4H_{10}$) on initiated cracking. However, with a low concentration of the initiator, demethanization and de-ethanization occur to the same extent, not as in ordinary cracking. When the concentration of ethylene oxide is raised (3-5%), demethanization begins to prevail, as is the case in normal cracking. This shift is best explained by the hypothesis of the isomerization of the butyl radicals to secondary butyl radicals. The decomposition of the oxide explains the higher yield of CH_4 , C_2H_6 , and H_2 .

Card 2/4

The Composition of the Products and the
Kinetics of Butane Cracking Initiated by
Additions of Ethylene Oxide

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B011/B126

as opposed to normal cracking. A similar pattern is followed by isobutyl cracking. The starting rate of initiated butane cracking rises with a rise in the concentration of the initiator. In each case it decreases with time, and reaches a certain limit, which is practically independent of the initial concentration of the addition (Fig. 2). The kinetics of initiated cracking have, as have those of normal cracking, the character of a process which is self-retarding by the products, and is described by the equation of Dintsess and Frost (Fig. 3). Ethylene oxide also has an inhibiting effect (Equations (I) - (IV)). The ethylene oxide rate-constant that was obtained, and the activating energy of the decomposition agreed with values previously (Refs. 1,7) established. The authors mention papers by A. I. Terenin (Ref. 12). There are 3 figures, 1 table, and 17 references: 9 Soviet and 8 American.

4

Card 3/4

The Composition of the Products and the
Kinetics of Butane Cracking Initiated by
Additions of Ethylene Oxide

81706
S/020/60/132/05/36/069
B011/B126

ASSOCIATION: Saratovskiy gosudarstvennyy universitet im.
N. G. Chernyshevskogo (Saratov State University imeni
N. G. Chernyshevskiy)

PRESENTED: January 8, 1960, by A. V. Topchiyev, Academician

SUBMITTED: July 10, 1960

Card 4/4

SHUL'KEVICH, Mikhail Mironovich.; DMITRENKO, Talida Danilovna.; ZAYCHENKO,
R., red.; GARSHANOV, A., red.; IOAKIMIS, A., tekhn. red.

[Kiev; with an index to the map]. Kiev; ukazatel' k plan-skhem.
Kiev, Gos. izd-vo lit-ry po stroit.i arkhitekt. USSR, 1958. 45 p.
1 fold map. (MIRA 11:12)

(Kiev--Maps)

SHULKA, Robert (Sulka, Robert)

Remark on radicals in factor semigroups. Mat. Fys. čas. SAV
14 no.4:293-300 1964.

1. Chair of Mathematics and Descriptive Geometry of the Faculty
of Electrical Engineering of the Slovak Higher School of
Technology, Bratislava, Gottwaldovo nám. 2.

SHULKA, Robert. (shuka, Robert)

Radicals and topology in semigroups. Mat. Iss. 34 no. 1:
3-14, 1965.

1. Chair of Mathematics and Descriptive Geometry of the
Faculty of Electrical Engineering of the Slovak Higher School
of Technology, Bratislava. Submitted October 21, 1963.

SHULKIN40818

600

1. SHUL'KIN, G. I.

2a USSR (600)

4. Automatic Control

7. Dispatching system at the Vyborg combine. Bum. prom., No. 6, 1951., No. 6, 1951.
Inzhener Vyborgskogo Tsellyulozno-Bumazhnogo Kombinata

9a Monthly List of Russian Accessions, Library of Congress, April 1952. UNCLASSIFIED.

SHUL'KIN, G.I., inzhener.

Valuable form of technical information ("Suggestions by progressive workers in the industry". Reviewed by G.I.Shul'kin). Bum.prom.31 no.2:31 F'56. (MIRA 9:6)

1.Svetogorskiy tsellyulozno-bumazhnyy kombinat.
(Svetogorsk--Wood-pulp industry)

SHUL'KIN, G.I., inzhener.

Information bulletins of the Svetogorsk combine. Bum.prom. 32 no.2:
31-32 F '57. (MLRA 10:5)

1.Uchenyy sekretar' nauchno-tekhnicheskogo otdela Sveto-
gorskogo tsellyulozno-bumzahnogo kombinata.
(Svetogorsk--Paper industry)
(Svetogorsk--Woodworking industries)

MALYSHKIN, K.N.; SHUL'KIN, G.I.

Introducing automatic control to the woodpulp and paper industries.
Bum.prom. 32 no.4:18-22 Ap '57. (MLRA 10:7)

1. Svetogorskiy tsellyulozno-bumazhnyy kombinat.
(Woodpulp industry) (Paper industry) (Automatic control)

SHUL'KIN, G.I.
MALYSHKIN, K.N.; SHUL'KIN, G.I.

Introducing automatic control to the woodpulp and paper industries.
Bum. prom. 32 no.5:18-21 My '57. (MLRA 10:6)

1. Svetogorskiy tsellyulozno-bumazhnyy kombinat.
(Woodpulp industry) (Paper industry) (Automatic control)

SHUL'KIN, G., inzh.

Research in a combine. NTO 2 no.1:19-21 Ja '60.
(MIRA 13:5)

1. Zamestitel' predsedatelya soveta pervichnoy organizatsii
Nauchno-tekhnicheskogo obshchestva na Svetogorskom tsellyulozno-
bumazhnom kombinat.

(Svetogorsk--Paper industry)

BAIMASOV, Ye.Ya.; SHUL'KIN, G.I.

Automatic measuring of lye. Bum.prom. 35 no.4:16-18 Ap '60.
(MIRA 13:10)

1. Moskovskiy filial Tsentral'nogo nauchno-issledovatel'skogo instituta
tsellyuloznoy i bumazhnoy promyshlennosti (for Baimasov). 2. Svetogor-
skiy tsellyulozno-bumazhnyy kombinat (for Shul'kin).
(Woodpulp)

YEVILEVICH, M.A.; SHUL'KIN, G.I.

Semi-industrial plant for the biological purification of
waste waters. Bum. prom. [38] no.6:9-11 Je '63.

(MIRA 16:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsellyu-
lozno-bumazhnoy promyshlennosti (for Yevilevich). 2. Sveto-
gorskiy kombinat (for Shul'kin).

(Industrial wastes---Purification)

SHUL'KIN, L., incho.

Repair method by units and sections is in action. Avt. transp.
43 no.2:17-19 F '65. (MIRA 18:6)

KHOROSHAVIN, L.B.; PEREPELTSYN, V.A.; ZHUKOV, A.V.; MOROKOV, P.K.;
MAKRUSHIN, V.V.; BARTOLISH, D.M.; BRYUNETKIN, M.O.; VAYNSHTEYN,
O.Ya.; GISS, A.N.; SHUL'KIN, M.A.; SHOTIN, V.S.

Use of metallurgical magnesite powder burned at low
temperature. Stal' 25 no.12:1086-1088 D '65.

(MIRA 18:12)

VAYNSHTEYN, O.Ya.; MOLCHANOVA, A.A.; POVOLOTSKIY, D.Ya.; KHRYUKINA, V.A.;
SHUL'KIN, M.L.

Production of 18KhNT and 15KhGHTA steel in open-hearth furnaces.
Stal' 23 no.7:621-623 Ял '63. (MIRA 16:9)
(Steel alloys--Metallurgy) (Open-hearth furnaces)

DORMIDONTOV, Fedor Konstantinovich; SHUL'KIN, P.S., nauchnyy red.;
KUSKOVA, A.I., red.; KONTOROVICH, A.I., tekhn.red.

[Economics, organization, and production planning of shipbuilding enterprises] Ekonomika, organizatsiia i planirovanie proizvodstva sudostroitel'nogo predpriiatiia. Leningrad, Gos. soiuзное izd-vo sudostroitel. promyshl., 1958. 434 p. (MIRA 11:12)
(Shipbuilding)

POLOTSKIY, Solomon Gertsovich; LOGINOV, S.P., kand. ekon. nauk, retsenzent;
SATANOVSKIY, Ya.S., inzh., retsenzent; SHUL'KIN, P.S., nauchnyy
red.; SHAKHNOVA, V.M., red.; TSAL, R.K., tekhn. red.

[Some problems in the economics of shipbuilding] Nekotorye voprosy ekonomiki sudostroeniia. Leningrad, Gos. soiuznoe izd-vo sudostroit. promyshl., 1961. 194 p. (MIRA 15:2)
(Shipbuilding)

WHITNEY, C. D.

USSR/Engineering - Hydraulics

Jun 51

"Auxiliary Diagram for Calculating Round Pressureless Water Conduits," S. E. Shul'kin, Engr

"Gidrotekh Stroi" No 6, pp 40,41

Suggested diagram for detg crit depths and crit gradients represents simple and convenient device for rapid calcn of round conduits working without pressure, such as discharge pipes of small reservoirs or gravity-flow water supply lines. Diagram plotting is based on reducing eqs, detg the crit depth and gradient of flow, to dimensionless form.

199T55

SHUL'KIN, S. M.

Card 3/3

AVAILABLE: Library of Congress

Polin, I. V., Candidate of Technical Sciences. Development and Present Status of the Production of Titanium and Titanium-Alloy Ingots

Shul'kin, S. M., Candidate of Technical Sciences. Hot-rolled Titanium Tubes

Polin, I. V., Engineer. Structure and Properties of Cast Induction-melted Titanium

Alashin, D. V., Engineer. On Certain Characteristics of the Dendritic Crystallization of Medium-Alloy Structural Steel

Gerasimov, P. I., Candidate of Technical Sciences. Crystallization and Ingot Structure

CONTRACT: The articles in this collection deal with the production and hot forming of steel and titanium ingots. Both theoretical and practical aspects are covered. Topics discussed include: crack formation during thermomechanical treatment; dependence of plasticity of low-carbon chromium steel on the method of steelmaking; vacuum melting of austenitic stainless steel; beneficial effect of hot deformation on steel properties; mechanical properties of sheet metal as related to rolling conditions; recrystallization and ingot structure; present status of titanium-ingot production, etc. Numerous references, principally Soviet, accompany the articles.

PURPOSE: This book is intended for engineers and technicians at industrial plants, for scientific personnel at research and educational institutions, and for students of advanced metallurgy.

REMARKS: This book is intended for engineers and technicians at industrial plants, for scientific personnel at research and educational institutions, and for students of advanced metallurgy.

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(4)

CO/1ab
10-12-50

S.M. Shal'kin

12(7) **PHASE I BOOK REVIEWS** 007/1950
 Metallurgy, *sternik stroy*, [vyp.] 2 (Study of Metals) Collection of Articles,
 [M.] 2 [Leningrad] Subprint, 1958. 257 p. 4,000 copies printed.

Author: M. I. Kopylov, Candidate of Technical Sciences; M. I. Ye. A. Krugova;
 Editor: M. I. Kopylov.

REVIEW: This book is intended for metallurgists and metallurgical engineers.
CONTENTS: This is the second volume of collected scientific papers dealing with
 various problems in physical metallurgy, particularly in mechanical metallurgy
 and metallography. Topics covered include hydrogen embrittlement, intra-
 granular distribution of elements in alloys, effect of tempering on carbon
 redistribution, use of tritium to investigate certain phenomena in metals,
 effect of certain alloying elements on temper brittleness and hardenability of
 steel, strength of notched specimens of brittle steel, effect of strain hardening
 on the properties of an aluminum alloy, etc. The articles are concerned mainly
 with various types of steel, though some deal with nonferrous alloys.

Card 1/25

Author: Ye. B. Kopylov, Candidate of Technical Sciences.
REVIEW: This book is intended for metallurgists and metallurgical engineers.
CONTENTS: This is the second volume of collected scientific papers dealing with
 various problems in physical metallurgy, particularly in mechanical metallurgy
 and metallography. Topics covered include hydrogen embrittlement, intra-
 granular distribution of elements in alloys, effect of tempering on carbon
 redistribution, use of tritium to investigate certain phenomena in metals,
 effect of certain alloying elements on temper brittleness and hardenability of
 steel, strength of notched specimens of brittle steel, effect of strain hardening
 on the properties of an aluminum alloy, etc. The articles are concerned mainly
 with various types of steel, though some deal with nonferrous alloys.

REVIEW: Library of Congress

00/1950
 7-4-59

Card 2/25

SHUL'KIN, S.M., kand.tekhn.nauk

Hot-rolled titanium pipe. Metallurgiya 1:153-166 '58.
(MIRA 12:8)

(Rolling (Metalwork)) (Titanium)

KHESIN, Yu.D., inzh.; SHUL'KIN, S.M., kand.tekhn.nauk

Plastic and heat treatment of certain binary titanium alloys.
Metallovedenie 2:251-265 1958. (MIRA 13:9)
(Titanium alloys--Metallography)

Shul'kin, S.M.

PHASE I BOOK EXPLORATION 807/3926

Metallurgy; *abornik stavy*, No. 2 (Metallurgy) Collection of Articles, No. 2),
Leningrad, Sudpromizdat, 1959. 362 p. 2,300 copies printed.

Wap. 24: G.I. Kopylov, Candidate of Technical Sciences; Eds.: V.I. Gerasimov
and S.P. Golubovskiy, Tech. Sci. V.I. Troshkin.

REMARK: This collection of articles is intended for technical personnel at
laboratory, research and design institutes and at research and educational institutions. It may also
be used by students taking courses in advanced metallurgy.

CONTENTS: The articles present the following material: original data on the
production of steel in open-hearth, electric, and vacuum arc furnaces; influ-
ence of the rolling of steel sheet of variable thickness along the width;
results of an investigation of sheet metal made from large ingots; method of
controlling the temperature of liquid steel; some theoretical problems of
production processes; isochronous, and practical recommendations are given
concerning specific problems. No personal data are mentioned. Most of the
articles are accompanied by references.

Gerasimov, V.I., Candidate of Technical Sciences. Effect of the Steel-
making Period on the Quality of Austenitic Electrode Steel. 34

Kopylov, G.I., Professor, and L.A. Gerasimov. Ways of Improving Metal
Quality Based on the Results of Process Control by the Ultrasonic Method
of Detecting Flaws in Acid and Basic Open-Hearth Steel with High
Chromium Content. 67

Kopylov, G.I., Professor, and L.A. Gerasimov. Necessary Accuracy for
Setting Standards for the Temperature for the Rolling
and Tempering of Steel. 89

Kopylov, G.I., and M.M. Kosenberg. Application of the Automatic
Color Pyrometer for Measuring the Temperature of Liquid Steel. 115

Kopylov, G.I., Engineer. The Possibility of Measuring the Temperature
of Liquid Steel and Poured Flux by a Shielded Low-Temperature Thermo-
couple. 126

Kopylov, G.I., and M.M. Kosenberg. Negative Liquidation of Impurities
in Steel Ingots. 136

Kopylov, G.I., Engineer. Liquidation of Alloying Elements Within the
Grains of Primary Crystallization in Structural Steel. 142

Kopylov, G.I., Engineer. Rolling Speeds of Irregular
Cross Section. 153

Kopylov, G.I., Engineer. On the Theory of Determining the Average
Rolling Diameter in Rolling with Grooved Rolls. 165

Kopylov, G.I., Engineer. Determination of the Coefficient of Elongation
in Rolling Strip with Nonuniform Reduction Along the Width. 176

Kopylov, G.I., Candidate of Technical Sciences. Distinguishing Features
of Acting in Vacuum Arc Furnaces. 188

Kopylov, G.I., and V.I. Kopylov. Method of Producing and
Rolling Extended Commercial Alloys for Making Titanium Alloys. 221

Kopylov, G.I., and V.I. Kopylov. Some Process Problems in the
Production of Titanium in Vacuum Arc Furnaces. 236

Kopylov, G.I., and V.M. Kopylov. Methods of Making Addition
Alloys for Titanium Alloys. 251

Kopylov, G.I., Candidate of Technical Sciences. Forming of Titanium
Alloys. 269

Kopylov, G.I., S.A. Kosharenko, Engineer, and Yu.I.
Kopylov, Engineer. Process Characteristics of the
Production of Hot-Rolled 18-075 Titanium-Alloy Sheets. 282

Kopylov, G.I., Engineer, and S.M. Shul'kin. Possibility of
Using 60-2 Titanium Sponge. 294

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TK/val/asm
7-25-60

PHASE I BOOK EXPLOITATION 201/5152

Metallurgical; Abstracts, No. 3 (Physical Metallurgy/Collection of Articles, No. 3), Leningrad, Sudpromizh, 1959. 190 p. 3,200 copies printed.

Ed.: G. I. Kogrin, Candidate of Technical Sciences; Literary and Tech. Ed.: M. I. Doroshenko.

PURPOSE: This collection of articles is intended for scientific personnel at research and educational institutions and industrial plants and also for advanced students.

COVERAGE: The articles report the results of investigations of 1) the effect of various factors on the susceptibility of constructional and heat-resistant steels and titanium alloys to brittle failure at various temperatures under various conditions of loading (long-time, short-time, cyclic, noncyclic) 2) alloying, structure, and condition of alloy as related to their mechanical properties, and 3) corrosion resistance and evaluation of stainless and heat-resistant steels. The articles are accompanied by numerous Soviet and non-Soviet references. No personalities are mentioned.

Rebikov, P. O., and V. A. Bretushkin, Engineer. Mechanical Strength of WTi	214
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Chuchulov, R. B.; V. I. Syzhichikov, Engineer; and Ye. S. Reyberg, Candidate of Technical Sciences. Investigation of the Fatigue Strength of Titanium	263
Yashchikova, A. I., Candidate of Technical Sciences. Effect of Vanadium, Molybdenum, and Niobium on the Properties of Alpha Alloys of Titanium	279
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Rechitskaya, S. Ye., Engineer; and M. I. Leonova, Engineer. Use of the Electron Microscope in Investigating the Structure of Type-St-404 Austenitic Steel at Various Degrees of Susceptibility to Intergranular Corrosion	381

AVAILABLE: Library of Congress

Card 6/6

21
VK/RM/ra
7-20-60

SHUL'KIN, S.M., kand.tekhn.nauk; YAMSHCHIKOVA, A.M.

Properties of single-phase weldable titanium alloys. Metall-
ovedenie 3:358-366 '59. (MIRA 14:3)
(Titanium alloys--Welding)

PHASE I BOOK EXPLOITATION

SOV/4573

Moroz, Lev Solomonovich, Doctor of Technical Sciences, Professor; Boris Borisovich Chechulin, Ivan Vasil'yevich Polin, Leonid Vladimirovich Butalov, Saveliy Moiseyevich Shul'kin, and Aleksandr Petrovich Goryachev

Titan i yego splavy, tom 1: Tekhnicheski chistyy titan (Titanium and Its Alloys, Vol. 1: Commercially Pure Titanium) Leningrad, Sudpromgiz, 1960. 515 p.
Errata slip inserted. 4,200 copies printed.

Ed. (Title page): L.S. Moroz; Ed. (Inside book): Z.V. Vlasova; Tech. Ed.: N.V. Erastova.

PURPOSE: This book is intended for scientific workers, plant engineers, and students in advanced courses in schools of higher technical education and tekhnikums. It may also be used as a manual for designers and industrial engineers (with the exception of mechanical engineers).

COVERAGE: The book presents data on the structure, phase transformation, and physicochemical and processing properties of commercially pure titanium.

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Titanium and Its Alloys (Cont.)

808/2575

[illegible]

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 2. Optical properties
 3. Electronic properties
 4. Electrical properties
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VM/dfk/mas
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BRIL', M.G.; SHUL'KIN, Yu.B.

Large-span roofs made of lightweight alloys. Prom. stroi. 38
no. 12:40-46 '60. (MIRA 13:12)
(Aluminum alloys) (Domes)

BRIL', M.G., inzh.; PAVILAYNEN, V.Ya., inzh.; SHUL'KIN, Yu.B., inzh.;
IMMERMAN, A.G., kand.tekhn.nauk

Three-dimensional structures with large spans made of light
metals. Rasch.prostr.konstr. no.6:5-38 '61. (MIRA 15:3)
(Roofs, Shell) (Aluminum, Structural)

ACCESSION NR: AR4015136

S/0124/63/000/012/V005/V005

SOURCE: RZh. Mekhanika, Abs.-12V35

AUTHOR: Shul'kin, Yu.B.

TITLE: Stability of a strip fixed at individual points

CITED SOURCE: Sb. tr. Lening. in-t inzh. zh.-d. transp. vy*p. 190, 1962, 337-342

TOPIC TAGS: elasticity theory, plane elasticity theory, strip elasticity, strip stability

TRANSLATION: The author uses the variational technique developed by A.I. Lur'ye for the problem of the stability of a plate compressed by point forces (Trudy Leningradskogo Industrial'nogo Instituta (Transactions of the Leningrad Industrial Institute), 1939, Vol 3, No 1) to obtain an approximate solution to the problem of stability of an infinitely long strip bounded by the lines $y = 0$ and $y = b$ loaded along the $y = 0$ edge with a uniformly-distributed extensive load q and fixed at individual equally-spaced points of the same edge:

$$x = \pm (2n - 1) \frac{a}{2} \quad (n = 1, 2, 3).$$

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ACCESSION NR: AR4015136

Actually, the author examines the case of supported strip edges and finds the critical stresses q_{kp} for a number of values a/b . G.Yu. Pshanelidze.

DATE ACQ: 31Dec63

SUB CODES: PH

ENCL: 00

Card 2/2

s/0179/64/000/002/0091/0095

ACCESSION NR: AP 4035062

AUTHOR: Shul'kin, Yu. B. (Leningrad)

TITLE: Stress-deformed state of a circular disc loaded along individual radii

SOURCE: AN SSSR. Izvestiya. Mekhanika i mashinostroyeniye, no. 2, 1964, 91-95

TOPIC TAGS: stress, deformation, disc stress, stress-deformed disc

ABSTRACT: The stress components and radial displacements of a thin circular disc with a free boundary are calculated. The disc is subjected to a radial load distributed according to some exponential law along several equally separated radii. The complex representation is used. The parameters for the case of axially symmetric loading are worked out.

This paper uses a different method to solve similar problems worked by D.V. Vaynberg and E. S. Umanskiy.

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Card

ACCESSION NR: AP 4035062

ASSOCIATION: none

SUBMITTED: 03Jul63.

DATE ACQ: 20May64

ENCL: 00

SUB CODE: AS, GP

NO REF SOV: 005

OTHER: 000

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2/2

SHUL'KIN, Yu.B. (Leningrad)

Equations for a problem concerning a plate reinforced by radial
ribs. Izv. AN SSSR. Mekh. no.2:152-154 Mr-Ap '65.

(MIRA 18:6)

MOISEYEV, K.I., student; SIVUKHA, M.I., student; SHUL'KIN, Yu.P., student

Investigating the endurance limit of shipbuilding steel to bending
on a level plane together with axial deformation. Trudy LKI no.29:
221-224 '59. (MIRA 14:7)

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(Plates, Iron and steel—Testing)

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no.2:15-18 '60. (MIRA 13:6)
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(Volga Valley--Railroads)
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